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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,117	09/10/2003	Cheng-Chi Wang	250317-1050	3590
24504	7590	09/01/2005	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			PRENTY, MARK V	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,117

Applicant(s)

WANG ET AL.

Examiner

MARK PRENTY

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-15, 18 and 23-26 is/are allowed.
- 6) ☒ Claim(s) 16, 17 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

This Office Action is in response to the amendment filed on June 20, 2005.

As a preliminary matter, the text of several of the claims is choppy and unclear in places (see claim 10, line 4, claim 16, lines 2 and 8, claim 18, lines 3 and 10, claim 22, line 1, and claim 23, line 1, for example). Correction is required.

Claims 16, 17 and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Lai (United States Patent 6,825,497, already of record).¹

With respect to independent claim 16, Lai discloses a thin film transistor substrate (see the entire patent, including the Fig. 7E disclosure), comprising at least: a plurality of stack structures on the substrate, wherein each stack structure comprises layers successively disposed which are a first conduction layer 13; a first insulation layer 15a, and a semiconductor layer 17; an ohmic contact layer 19, positioned on a first region and a second region of the semiconductor layer, wherein the first region and the second region are disconnected; a second insulation layer 23, positioned at least on side surfaces of the stack structures; a source electrode 21S and a drain electrode 21D, wherein the source electrode is positioned at least on the ohmic contact layer in the first region, and the drain electrode is positioned at least on the ohmic contact layer in the second region, and wherein at least one of the source electrode and the drain electrode is positioned on a [side] part of the second insulation layer; a passivation layer 27, positioned on the semiconductor layer and the source and the drain electrodes; and a

¹ Applicants cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

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transparent conduction layer 25a, positioned on the passivation layer and electrically coupled to one of the source and the drain electrodes.

Claim 16 is thus rejected under 35 U.S.C. 102(e) as being anticipated by Lai.

With respect to dependent claim 17, Lai's second insulation layer 23 is further deposited among the stack structures.

Claim 17 is thus rejected under 35 U.S.C. 102(e) as being anticipated by Lai.

With respect to dependent claim 19, Lai's first conduction layer 13 is a gate electrode (see column 3, lines 28-30).

Claim 19 is thus rejected under 35 U.S.C. 102(e) as being anticipated by Lai.

With respect to dependent claim 20, Lai's transparent electrode layer 25a is formed of indium-tin-oxide (see column 3, lines 59-67).

Claim 20 is thus rejected under 35 U.S.C. 102(e) as being anticipated by Lai.

With respect to dependent claim 21, Lai's passivation layer 27 is further positioned on the second insulation layer 23 (on the source side).

Claim 21 is thus rejected under 35 U.S.C. 102(e) as being anticipated by Lai.

Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable over the prior art of record if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10-15, 18 and 23-26 are allowable over the prior art of record.

The applicants' argument with respect to amended claim 16 is incorrect. Specifically, as explained in the amended rejection, Lai's source and drain electrodes 21S and 21D are positioned on a side part of second insulation layer 23.

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Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Registered practitioners can telephone the examiner at (571) 272-1843. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the Application/Control (Serial) Number. Technology Center 2800's general telephone number is (571) 272-2800.


Mark V. Prenty
Primary Examiner